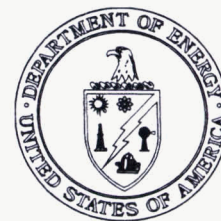


**Department of Energy**

**Ohio Field Office
Fernald Closure Project
175 Tri-County Parkway
Springdale, Ohio 45246**

JUL 13 2006



Mr. James A. Saric, Remedial Project Manager
United States Environmental Protection Agency
Region V-SRF-5J
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

DOE-0169-06

Mr. Thomas Schneider, Project Manager
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Saric and Mr. Schneider:

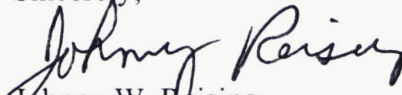
**TRANSMITTAL OF RESPONSES TO COMMENTS ON THE DRAFT SECOND
FIVE-YEAR REVIEW REPORT FOR THE FERNALD CLOSURE REPORT**

- References:
- 1) Letter, J. Saric to J. Reising, "Draft Second Five Year Review," dated May 18, 2006
 - 2) Letter, T. Schneider to J. Reising, "Comments - Second Five-Year Review Report for the Fernald Closure Project," dated July 6, 2006

Enclosed for your approval are responses to U.S. Environmental Protection Agency (EPA) and Ohio Environmental Protection Agency comments on the draft Second Five-Year Review Report for the Fernald Closure Project. The five-year review is statutorily required by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) at National Priority List sites that implement remedial actions which will result in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure. Upon approval, these comment responses will be incorporated into the final report.

If you have any questions or require additional information, please contact me at (513) 648-3139.

Sincerely,


Johnny W. Reising
Director

Enclosure

Mr. James Saric
Mr. Thomas Schneider

-2-

DOE-0169-06

cc w/enclosure:

J. Desormeau, DOE-OH/FCP
E. Skintik, DOE-OH/FCP
T. Schneider, OEPA-Dayton (three copies of enclosure)
G. Jablonowski, USEPA-V, SRF-5J
M. Cullerton, Tetra Tech
M. Shupe, HSI GeoTrans
S. Helmer, ODH
AR Coordinator, Fluor Fernald, Inc./MS6

cc w/o enclosure:

R. Abitz, Fluor Fernald, Inc./MS88
D. Carr, Fluor Fernald, Inc./MS1
M. Cherry, Fluor Fernald, Inc./MS1
J. Chiou, Fluor Fernald, Inc./MS88
D. Dalga, Fluor Fernald, Inc./MS88
M. Frank, Fluor Fernald, Inc./MS88
W. Hertel, Fluor Fernald, Inc./MS12
J. Homer, Fluor Fernald, Inc./MS90
F. Johnston, Fluor Fernald, Inc./MS12
T. L. Jones, DOE Contracting Officer, DOE/EMCBC
C. Murphy, Fluor Fernald, Inc./MS1
P. O'Neill, Fluor Fernald, Inc./MS88
D. Paine, Fluor Fernald, Inc./MS90
D. Sizemore, Fluor Fernald Inc. Prime Contract, MS1
J. Wagner, Fluor Fernald, Inc./MS76

**RESPONSES TO
U.S. ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL REVIEW COMMENTS AND OHIO
ENVIRONMENTAL PROTECTION AGENCY COMMENTS
ON THE DRAFT SECOND FIVE-YEAR REVIEW REPORT
FOR THE FERNALD CLOSURE PROJECT**

**FERNALD CLOSURE PROJECT
FERNALD, OHIO**

JULY 2006

U.S. DEPARTMENT OF ENERGY

**RESPONSES TO U.S. ENVIRONMENTAL PROTECTION AGENCY
TECHNICAL REVIEW COMMENTS ON THE
DRAFT SECOND FIVE-YEAR REVIEW REPORT
FOR THE FERNALD CLOSURE PROJECT
(2500-RP-0044, Revision B)**

SPECIFIC COMMENTS

Commenting Organization: U.S. EPA
Section #: Not Applicable (NA) Page #: NA
Original Specific Comment #: 1
Comment: The report is missing a signature approval page for U.S. Department of Energy (DOE). The report should be revised to include the signature approval page. Further, the next submittal should be signed by a U.S. DOE official.

Response: Agree.

Action: The DOE signature page will be signed by a DOE official and included in the final report.

Commenting Organization: U.S. EPA
Section #: NA Page #: NA
Original Specific Comment #: 2
Comment: The report is missing an Executive Summary. The report should be revised to include an executive summary, which includes a reiteration of the issues, recommendations and follow-up actions, as well as the protectiveness statement for each Operable Unit (OU) and the entire site.

Response: Agree.

Action: An executive summary will be included with the final report.

Commenting Organization: U.S. EPA
Section #: 1.1 Page #: 1-1
Original Specific Comment #: 3
Comment: The text states that the report reflects the planned activities of the Long-Term Stewardship Monitoring Plan dated 2000. The report should be revised to state that it also reflects the planned activities of the Legacy Management and Institutional Control Plan (LMICP) dated 2006.

Response: Agree.

Action: DOE will include a statement that notes the report also reflects the planned activities of the latest revision of the LMICP.

Commenting Organization: U.S. EPA
Section #: 1.2 Page #: 1-2
Original Specific Comment #: 4
Comment: The text discusses U.S. EPA and Ohio Environmental Protection Agency (OEPA) involvement at the site. The text should be revised to discuss community involvement in the 5-year review process for the site.

Response: Agree.

Action: The text will be revised to note community involvement in the 5-year review process.

Commenting Organization: U.S. EPA

Commentor: Saric

Table #: 1-1

Page #: 1-4

Line #: 10

Original Specific Comment #: 5

Comment: Table 1-1 lists major Fernald events and milestones. Table 1-1 should be revised to list the LMICP dated 2006 that describes the closure and post-closure activities for the site.

Response: Agree.

Action: The LMICP will be added to Table 1-1.

Commenting Organization: U.S. EPA

Commentor: Saric

Table #: 1-2

Page #: 1-5

Line #: NA

Original Specific Comment #: 6

Comment: Table 1-2 describes the current status of the remedies for Operable Units (OU) 1 and 2 in the Remedy Overview column of the table. However, the current status of the remedies for OUs 3, 4, and 5 are not discussed. Table 1-2 should be revised to discuss the current status of the remedies for OUs 3, 4, and 5.

Response: Agree.

Action: The remedial status for OUs 3, 4 and 5, as December 31, 2005, will be summarized in Table 1-2.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.4

Page #: 1-8

Line #: 1

Original Specific Comment #: 7

Comment: The text states that an interim residual risk assessment will be completed to document conditions remaining as the Fernald Closure Project (FCP) enters the legacy management phase. The text should be revised to state whether the interim residual risk assessment will be (1) human health risk assessment, (2) ecological risk assessment, or (3) both.

Response: Agree.

Action: The text will be revised to note that the interim residual risk assessment will address human health.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.5

Page #: 1-8

Line #: NA

Original Specific Comment #: 8

Comment: The text discusses the 5-year review schedule and expectations for future reviews. The text should be revised to discuss community involvement in the second and third 5-year reviews.

Response: Agree.

Action: The text will be revised to note community involvement in the second and third 5-year reviews.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.7

Page #: 1-9

Line #: 28

Original Specific Comment #: 9

Comment: The text discusses continued Federal ownership as being an institutional control. This is not actually an institutional control. The real institutional control for the site is the Legacy Management Institutional Control Plan. This is the controlling, enforceable document under the Amended Consent Agreement to ensure that institutional controls are maintained and enforced at the site in the future. The specific role of this document must be included.

Response: Agree.

Action: The text will be revised to note that the LMICP is the guiding and enforceable document for institutional controls at the site.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.7

Page #: 1-9

Line #: 29

Original Specific Comment #: 10

Comment: The text discusses deed restrictions. It should be clarified if deed restrictions are only going to be placed on the property now, or only if the property is transferred in the future.

Response: Agree.

Action: Text will be added to note, per the OU2 ROD, restrictions on the use of the property would be noted on the deed in the event the property was transferred at some point in the future.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.7

Page #: NA

Line #: NA

Original Specific Comment #: 11

Comment: The report should better describe the types of institutional controls that are used to supplement the engineered remedy in order to assure that the remedy remains protective of human health and the environment. Additionally, state which RODs for the site specifically require ICs.

Response: Agree.

Action: Text will be added to note that ICs are required per the OU2 and OU5 RODs and they will be implemented at the FCP in conjunction with physical barriers, such as fencing around the OSDF area. Verbiage from the OU2 and OU5 RODs will be inserted to describe the institutional controls.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 1.7

Page #: NA

Line #: NA

Original Specific Comment #: 12

Comment: It is not apparent if and how the IC plan accounts for off site groundwater contamination. This must be addressed.

Response: Agree.

Action: The text will note that monitoring and ICs associated with off site groundwater contamination are addressed in Attachments A and D of the LMICP (DOE 2006).

Commenting Organization: U.S. EPA

Section #: 1.7

Page #: 1-9

Commentor: Saric

Line #: NA

Original Specific Comment #: 13

Comment: The test referenced closure of the property. Define what is meant by closure and the approximate time frame of the closure.

Response: The term "closure" refers to that point in time that responsibility of the FCP transfers from DOE Environmental Management to DOE Legacy Management. It is also tied to the contractual arrangement between DOE and Fluor Fernald whereby closure refers to when all remediation is complete with the exception of the operation of the groundwater remedy.

Action: The sentence will be revised to read:

"This transitioned program will monitor and evaluate all environmental aspects of the remedial operations at the FCP during legacy management which is currently planned to commence on September 7, 2006."

Commenting Organization: U.S. EPA

Section #: 2.0

Page #: 2-1

Commentor: Saric

Line #: NA

Original Specific Comment #: 14

Comment: The text discusses remedial action activities for OU1. The text should be revised to summarize costs associated with remedial action activities for OU1.

Response: A summary of cost information is beyond the scope of the CERCLA review. This information will be provided in the final Remedial Action Report for each OU.

Action: None.

Commenting Organization: U.S. EPA

Section #: 3.0

Page #: 3-1

Commentor: Saric

Line #: NA

Original Specific Comment #: 15

Comment: The text discusses remedial action activities for OU2. The text should be revised to summarize costs associated with remedial action activities for OU2.

Response: A summary of cost information is beyond the scope of the CERCLA review. This information will be provided in the final Remedial Action Report for each OU.

Action: None.

Commenting Organization: U.S. EPA

Section #: 4.0

Page #: 4-1

Commentor: Saric

Line #: NA

Original Specific Comment #: 16

Comment: The text discusses remedial action activities for OU3. The text should be revised to summarize costs associated with remedial action activities for OU3.

Response: A summary of cost information is beyond the scope of the CERCLA review. This information will be provided in the final Remedial Action Report for each OU.

Action: None.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 5.0

Page #: 5-1

Line #: NA

Original Specific Comment #: 17

Comment: The text discusses remedial action activities for OU4. The text should be revised to summarize costs associated with remedial action activities for OU4.

Response: A summary of cost information is beyond the scope of the CERCLA review. This information will be provided in the final Remedial Action Report for each OU.

Action: None.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 6.0

Page #: 6-1

Line #: NA

Original Specific Comment #: 18

Comment: The text discusses remedial action activities for OU5. The text should be revised to summarize costs associated with remedial action activities for OU5.

Response: A summary of cost information is beyond the scope of the CERCLA review. This information will be provided in the final Remedial Action Report for each OU.

Action: None.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 6.1.1.3

Page #: 6-2

Line #: 22

Original Specific Comment #: 19

Comment: The text states that the total volume of soil to be excavated was estimated at 1,800,000 cubic yards; however, 2,920,000 cubic yards have been excavated to date. The text should be revised to discuss why an additional 1,000,000 cubic yards of material was generated above the estimate.

Response: Agree.

Action: The text will be clarified to note that the initial estimates for excavation volumes were 1,800,000 for soil and 300,000 for debris, for a total of 2,100,000 cubic yards. The present value of 2,920,000 cubic yard includes soil and debris. Therefore, the difference is approximately 800,000 cubic yards. This overrun is due to the failure of construction crews to execute detailed excavation designs (approximately 30 percent over-excavation, or an additional 540,000 cubic yards), chasing additional contamination identified by real-time surveys (approximately 10 percent, or 180,000 cubic yards), and additional debris (80,000 cubic yards) from underestimating debris volumes below grade and the debris added from the Silo Remediation Facilities.

Commenting Organization: U.S. EPA

Commentor: Saric

Section #: 6.3.2

Page #: 6-7

Line #: 25

Original Specific Comment #: 20

Comment: The text states that Phase II of the Waste Storage Area Module will be installed in the OU4 waste pit area sometime in 2006. The text should be revised to state that Phase II will include the installation of one extraction well and six monitoring wells.

Response: Agree.

Action: The text will be revised to state that Phase II will include the installation of one extraction well and six monitoring wells.

Commenting Organization: U.S. EPA

Section #: 6.3.3.2

Page #: 6-9

Commentor: Saric

Line #: 8

Original Specific Comment #: 21

Comment: The text states that effluent from the CAWWT is discharged to the Great Miami River via the Parshall Flume. The text should be revised to discuss the removal of the old outfall line and contaminated soil and concrete that took place in 2004.

Response: Agree.

Action: A discussion will be added to account for removal of the old outfall line.

Commenting Organization: U.S. EPA

Section #: 6.6

Page #: 6-22

Commentor: Saric

Line #: NA

Original Specific Comment #: 22

Comment: The Operable Unit 5 remedy is not complete. Therefore, the protectiveness statement for both soil and groundwater should be revised to indicate the remedy "is expected to be protective of human health and the environment, upon completion, and immediate threats have been addressed."

Response: Agree.

Action: The protective statement will be revised to indicate the remedy is expected to be protective of human health and the environment.

Commenting Organization: U.S. EPA

Section #: NA

Page #: NA

Commentor: Saric

Line #: NA

Original Specific Comment #: 23

Comment: Since the site has been divided into multiple Operable Units, the document must include a sitewide protectiveness statement.

Response: Agree.

Action: A sitewide protective statement will be added.

Commenting Organization: U.S. EPA

Section #: NA

Page #: NA

Commentor: Saric

Line #: NA

Original Specific Comment #: 24

Comment: Provide a table that describes the restricted areas of the Site (i.e., those areas that do not allow unlimited use and unrestricted exposure (UU/UE) and the objective/performance standard(s) for that area.

Response: Agree.

Action: A table will be provided to include the requested information.

Response: Agree.

Action: The tense of the protectiveness statement will be changed to reflect ongoing restoration activities.

- | | | | | |
|----|--|------------|--------------------------------|---------|
| 9. | Commenting Organization: Ohio EPA
Section #: 4.4.3
Original Comment #: 9
Comment: Revise the bullet to state, "The OSDF engineering design would be sufficient for the USEPA to grant a waiver of the Ohio solid waste siting criteria to allow its siting over the Great Miami Aquifer (GMA)." | Pg #: 4-11 | Commenter: OFFO
Line #: 7-8 | Code: C |
|----|--|------------|--------------------------------|---------|

Response: Agree.

Action: Statement will be changed as noted.

- | | | | |
|-----|--|-----------------|-----------------|
| 10. | Commenting Organization: Ohio EPA | Commenter: OFFO | |
| | Section #: Table 5-1 | Pg #: 5-5 | Line #: Code: C |
| | Original Comment #: 10 | | |
| | Comment: Insert actual dates for Completion of Silo 3 disposal and Silos 1 and 2 shipment. | | |

Response: Agree.

Action: Actual dates will be inserted in Table 5-1.

- | | | | | |
|-----|--|-------|----------------------------|---------|
| 11. | Commenting Organization: Ohio EPA
Section #: Figure 5-2
Original Comment #: 11
Comment: Since specific radon monitors are referenced in the table it would be appropriate to include a map showing their locations. | Pg #: | Commenter: OFFO
Line #: | Code: C |
|-----|--|-------|----------------------------|---------|

Response: Agree.

Action: A location map will be provided.

- | | | |
|-----|---|-----------------|
| 12. | Commenting Organization: Ohio EPA | Commenter: OFFO |
| | Section #: 6.3.1 | Pg #: 6-6 |
| | Original Comment #: 12 | Line #: Code: C |
| | Comment: This section on "Remedial Action Status" needs to address the issue of recertification and the Area 4B. Provide the appropriate information in the text and Table 6-1. | |

Response: Agree.

Action: Recertification will be addressed in the text and table.

- | | | |
|-----|---|-----------------|
| 13. | Commenting Organization: Ohio EPA | Commenter: OFFO |
| | Section #: 6.4.1 | Pg #: 6-10 |
| | Original Comment #: 13 | Line #: Code: C |
| | Comment: This section is incorrect. Soil certification is not complete in Area 4B, please make the appropriate corrections. | |

Response: Agree.

Action: Text will be corrected to note recertification is ongoing in Areas 4A and 4B.

14. Commenting Organization: Ohio EPA
Section #: 6.4.2 Pg #: 6-10 Commenter: OFFO
Line #: Code: C
Original Comment #: 14
Comment: There is no mention of Area 4B and the recent recontamination issues. Due to this area being recontaminated, resampled and having to be recertified, this information should be included in the document.
- Response: Agree.
- Action: A discussion will be added on the recertification of Areas 4A and 4B.
15. Commenting Organization: Ohio EPA
Section #: 6.4.3 Pg #: 6-13 Commenter: OFFO
Line #: Code: C
Original Comment #: 15
Comment: This section does not discuss the effectiveness of the ground water remedy with regard to the OU5 ROD requirements regarding institutional controls and deed restrictions in particular. Revise the document to specifically address this ROD requirement.
- Response: Institutional controls stipulated in the OU5 ROD apply to the site as a whole and were not specified for the groundwater remedy. Institutional controls are discussed in Section 1.7.
- Action: None.